## INTER-DEVICE COMMUNICATION INTERFACE

## Abstract of the Invention

A hardware-to-software compiler is provided

- 5 that runs an optimization on a circuit implemented in programmable logic. The optimization allows portions of the program implemented by the circuit to be executed via software. A communication interface between the hardware and software is provided that allows for efficient data
- flow. A communication channel is provided that can be effected as bidirectional using a unidirectional transport medium (e.g., PCI bus). Communication between devices is done through pop interface buffers and push interface buffers on either side of the communication
- 15 channel.